REMARKS

Claims 21-45, 47-55, and 57-67 are active in this application. Support for the amendments submitted is found on page 6, lines 6-13 of the specification. Section headings have been provided. An abstract and sequence listing were filed with Applicants' response on March 11, 2002. No new matter is added.

Applicants wish to thank Examiner Brown for indicating that Claim 59 is free of the prior art. In light of the amendments submitted herein and the following remarks, favorable reconsideration of the current rejections and allowance of all pending claims is requested.

The rejection of Claims 45-58, and 60-63 under 35 U.S.C. § 102(a) over Avrameas et al is respectfully traversed.

Avrameas et al was published in May 1998. This application claims priority to French application FR9709972 which was filed August 4, 1997. To perfect priority to this French application, Applicants submit herewith a certified English translation of that priority document. Therefore, Applicants request benefit of this claim of priority and withdrawal this ground of rejection.

Applicants also request that the rejection of Claims 45-58 and 60-67 under 35 U.S.C. § 103(a) over Avrameas et al further in view of Jin et al and Weisbart be withdrawn for the same reasons.

The rejection of Claims 45-52, 56-58, and 60-63 under 35 U.S.C. § 102(a) over Weisbart is respectfully traversed.

Weisbart was published on September 12, 1997, which is after the August 4, 1997 French priority date, for which the Applicants request priority.

In any case, Weisbart does not describe the subject of the claimed invention which is an isolated polypeptide consisting of one single chain of amino acids which comprises one or more penetrating fragments derived from one or more penetrating antibodies and which

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penetrates into a cell. The entire disclosure of Weisbart is directed to a full antibody or F'ab fragments of mAb 3E10, which are dimers of the Light Chain (VK) and Heavy Chain (VH) amino acid chains, i.e., consisting of more than a single chain of amino acids. See, for example, Weisbart on page 10, lines 27-29, page 21, lines 11-13 and pages 23-24.

Therefore, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 45-52, 56-58 and 60-63 under 35 U.S.C. § 102(b) over Zack et al is respectfully traversed.

Zack et al describes antibodies and F'ab fragments of anti-double stranded DNA which can penetrate cells. One of the antibodies described in Zack et al is the same as in Weisbart, i.e, mAB 3E10 (page 1988, 1st column, 1st paragraph) and as such the antibodies and fragments thereof are dimers of antibody chains. Therefore, the antibodies and antibody fragments do not consist of a single chain of amino acids as claimed. Withdrawal of this ground of rejection is respectfully requested.

Similarly, the rejection of Claims 45-58 and 60-67 under 35 U.S.C. § 103(a) over Weisbart or Zack, further in view of Avrameas and Jin is respectfully traversed.

As noted, *supra,* Weisbart and Zack describe anti-DNA antibodies and F'ab fragments thereof, all of which consist of at least two or more amino acid chains. Avrameas was published after the French priority document was filed. Jin does not describe anything relating to the isolated polypeptide claimed in this application but rather the biological activity of heparin. None of the cited references provide any description concerning the claimed polypeptide nor is there any evidence of record to suggest that one would prepare the claimed polypeptide, particularly, in light of the actual disclosures which are directed to the entire antibody or F'ab fragments. Therefore, the present claims cannot be obvious in view of the combined teachings of these references. Withdrawal of this ground of rejection is respectfully requested.

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The objection to Claims 59, 63 and 66 is believed to have been addressed by the amendment.

Applicants submit that the present application is now ready for allowance. Early notification of such allowance is kindly requested.

Respectfully submitted,

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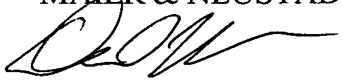
MAIER & NEUSTADT, P.C.



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Serial No: 09/497,997
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IN THE SPECIFICATION

Page 1, please the following heading at line 1:

TITLE OF THE INVENTION

Page 1, please insert the following paragraph between lines 2 and 3 as follows:

CROSS-REFERENCE TO A RELATED APPLICATION

The present application is a continuation of PCT/FR98/01740 filed August 4, 1998

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

Page 1, please insert the following heading between lines 12 and 13:

DESCRIPTION OF THE BACKGROUND

Page 3, please insert the following heading between lines 10 and 11:

SUMMARY OF THE INVENTION

Page 32, please replace line 5 with the following:

[Key to Figures] BRIEF DESCRIPTION OF THE DRAWINGS

Page 33, please insert the following heading between lines 23 and 24:

DETAILED DESCRIPTION OF THE INVENTION

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IN THE CLAIMS

--46. (Cancelled).

56. (Cancelled).—

45. (Amended) An isolated polypeptide, consisting of a single chain of amino acids, wherein said single chain of amino acids comprises one or more penetrating fragments derived from one or more penetrating antibodies, and wherein said isolated polypeptide penetrates into a cell [comprising a unique or repeated peptide motif, which penetrates into a cell].

47. (Amended) The isolated polypeptide of claim 45, [which] wherein said single chain of amino acids comprises all or a portion of an antibody hypervariable region.

48. (Amended) The isolated polypeptide of claim 45, [which] wherein said single chain of amino acids comprises one or more heavy chain antibody fragments.

57. (Amended) The isolated polypeptide of claim [56] 45, wherein said penetrating antibody is a polyreactive antibody.

58. (Amended) The isolated polypeptide of claim [56] 45, wherein said penetrating antibody is an anti-DNA antibody.

59. (Amended) The isolated polypeptide of claim [56] 45, which comprises a sequence selected from the group consisting of SEQ ID NO: 1, amino acids 2-17 of SEQ ID NO:1, amino acids 3-17 of SEQ ID NO:1, amino acids 4-17 of SEQ ID NO:1, [SEQ ID NO: 2, amino acids 2-17 of SEQ ID NO:2, amino acids 3-17 of SEQ ID NO:2, amino acids 4-17 of SEQ ID NO:2, SEQ ID NO: 3, amino acids 2-17 of SEQ ID NO:3, amino acids 3-17 of SEQ ID NO:3, amino acids 4-17 of SEQ ID NO:3, SEQ ID NO: 8,] and a functional homologue thereof.

60. (Amended) The isolated polypeptide of claim 45, [which further] wherein said single chain of amino acids comprises a basic amino acid region.

62. (Amended) The isolated polypeptide of claim 45, wherein [the amino acid sequence] said single chain of amino acids is obtained by screening a peptide library for a cell penetration activity.

63. (Amended) The isolated polypeptide of claim 45, wherein said polypeptide reacts *in vitro* with one or more macromolecules selected from the group consisting of anionic macromolecules, double-stranded RNA, single-stranded RNA, DNA, cationic macromolecules and histones.

65. (Amended) An isolated polypeptide, [comprising] consisting of a polylysine region and a [region] single chain of amino acids derived from a penetrating polyreactive antibody, wherein the isolated polypeptide penetrates into a cell.

66. (Amended) The isolated polypeptide claim [64] 65, wherein said polypeptide reacts *in vitro* with one or more macromolecules selected the group consisting of anionic macromolecules, double-stranded RNA, single-stranded RNA, DNA, cationic macromolecules and histones.

67. (Amended) The isolated polypeptide of claim [45] 65, which reacts *in vitro* with heparin and heparin sulphate.